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Rolling boot with large radius of curvature

Claims

1. A rolling boot (10) for sealing two rotational parts (21, 22) which rotate together, which can be articulated relative to one another and/or which are axially displaceable relative to one another, which rolling boot (10) has a longitudinal and symmetry axis A, which rolling boot (10) comprises the following:
a first collar (11) with a smaller diameter for being secured on a first rotational part (11) with a smaller diameter,
a second collar (12) with a larger diameter for being secured on a second rotational part (12) with a larger diameter, and
an annular wall (13) whose diameter widens from the smaller first collar (11) to the larger second collar (12),

wherein the annular wall (13), in a condition of production, at the unclamped-in rolling boot, in a longitudinal half-section, extends in a widening S-shaped way with an inward curvature next to the smaller first collar (11) and with an outward curvature next to the larger second collar (12).

2. A rolling boot according to claim 1,

characterised in

that the annular wall (13), in the condition of being produced, at the unclamped-in rolling boot, adjoins the smaller first collar (11) so as to extend approximately axis-parallel relative to the longitudinal axis A.

3. A rolling boot according to any one of claims 1 or 2,

characterised in

that the annular wall (13), in the condition of being produced, at the unclamped-in rolling boot, adjoins the larger second collar (12) so as to extend approximately axis-parallel relative to the longitudinal axis A.

4. A rolling boot (10) for sealing two rotational parts (21, 22) which rotate together, which can be articulated relative to one another and/or which are axially displaceable relative to one another, which rolling boot (10) has a longitudinal and symmetry axis A, which rolling boot (10) comprises the following:
a first collar (11) with a smaller diameter for being secured on a first rotational part (11) with a smaller diameter,
a second collar (12) with a larger diameter for being secured on a second rotational part (12) with a larger diameter, and
an annular wall (13) whose diameter widens from the smaller first collar (11) to the larger second collar (12),

wherein the annular wall (13), in a condition of production, at the unclamped-in rolling boot, in the longitudinal half-section, extends in a C-shaped way with an inward curvature between the smaller first collar (11) and

the larger second collar (12).

5. A rolling boot according to claim 4,

characterised in

that the annular wall (13), in the condition of being produced, at the unclamped-in rolling boot, adjoins the smaller first collar (11) so as to extend approximately axis-parallel relative to the longitudinal axis A.

6. A rolling boot according to any one of claims 4 or 5,

characterised in

that the annular wall (13), in the condition of being produced, at the unclamped-in rolling boot, in the longitudinal half-section, adjoins the larger second collar (12) at an acute angle relative to the longitudinal section A.

7. A rolling boot according to any one of claims 1 to 6,

characterised in

that the smaller first collar (11) is inwardly thickened relative to the annular wall (13).

8. A rolling boot according to any one of claims 1 to 7,

characterised in

that the smaller first collar (11), out its outside, comprises an annular groove (16) for receiving a tensioning

strip (23).

9. A rolling boot according to any one of claims 1 to 8,

characterised in

that the larger second collar (12) is provided in the form of a rounded bead.

10. A rolling boot according to claim 9,

characterised in

that the larger second collar (12) is beaded into an annular attaching cap.

11. A rolling boot according to any one of claims 1 to 10,

characterised in

that on the inside of the smaller first collar (11), there is provided a ventilation channel which is composed of longitudinal grooves (17, 18) circumferentially offset relative to one another, and of a circumferential groove (19) connecting the latter.

12. A rolling boot according to any one of claims 1 to 11,

characterised in

that at the smaller first collar (11), axially opposite the annular wall (13), there is arranged a thin-walled protective sleeve (14) which, at its free end, comprises the shortest distance from the longitudinal axis A.